

## SEQUENCE LISTING

&lt;110&gt; Consiglio Nazionale delle Ricerche

5 &lt;120&gt; Fusion proteins

&lt;130&gt; BW352R

&lt;160&gt; 7

&lt;170&gt; PatentIn version 3.2

10 &lt;210&gt; 1

&lt;211&gt; 732

&lt;212&gt; DNA

&lt;213&gt; Parietaria judaica

&lt;222&gt; (1)..(729)

15 &lt;220&gt;

&lt;221&gt; misc\_feature

<222> (10)..(12); (40)..(42); (85)..(90); (148)..(150); (154)..(156);  
(271)..(273); (322)..(324); (352)..(354); (397)..(402); (460)..(462);  
(466)..(468); (535)..(537); (583)..(585)

20 &lt;223&gt; n is a, c, g, or t

&lt;400&gt; 1

25	gag gag gct nnn ggg aaa gtg gtg cag gat ata atg ccg nnn ctg cat	48
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	1                       5                       10                       15	

30	ttc gtg aag ggg gag gag aag gag ccg tcg aag gag nnn nnn agc ggc	96
	Phe Val Lys Gly Glu Lys Glu Pro Ser Lys Glu Xaa Xaa Ser Gly	
	20                       25                       30	

35	acg aag aag ctg agc gag gag gtg aag acg acg gag cag aag agg gag	144
	Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu	
	35                       40                       45	

40	gcc nnn aag nnn ata gtg cgc gcc acg aag ggc atc tcc ggt atc aaa	192
	Ala Xaa Lys Xaa Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys	
	50                       55                       60	

45	aat gaa ctt gtc gcc gag gtc ccc aag aag nnn gat att aag acc act	240
	Asn Glu Leu Val Ala Glu Val Pro Lys Lys Xaa Asp Ile Lys Thr Thr	
	65                       70                       75                       80	

50	ctc ccg ccc atc acc gcc gac ttc gac tgc nnn aag atc caa agt act	288
	Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Xaa Lys Ile Gln Ser Thr	
	85                       90                       95	

55	att ttc aga ggt tac tat gga ttc caa gaa acc nnn ggg act atg gtg	336
	Ile Phe Arg Gly Tyr Tyr Gly Phe Gln Glu Thr Xaa Gly Thr Met Val	
	100                      105                       110	

aga ggc ctg atg ccg nnn ctg ccg ttc gtg cag ggg aaa gag aaa gag 384  
 Arg Ala Leu Met Pro Xaa Leu Pro Phe Val Gln Gly Lys Glu Lys Glu  
 115 120 125  
 5 ccg tca aag ggg nnn nnn agc ggc gcc aaa aga ttg gac ggg gag acg 432  
 Pro Ser Lys Gly Xaa Xaa Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr  
 130 135 140  
 10 aag acg ggg ccg cag agg gtg cac gct nnn gag nnn atc cag acc gcc 480  
 Lys Thr Gly Pro Gln Arg Val His Ala Xaa Glu Xaa Ile Gln Thr Ala  
 145 150 155 160  
 15 atg aag act tat tcc gac atc gac ggg aaa ctc gtc agc gag gtc ccc 528  
 Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro  
 165 170 175  
 aag cac nnn ggc atc gtt gac agc aag ctc ccg ccc att gac gtc aac 576  
 Lys His Xaa Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn  
 180 185 190  
 20 atg gac nnn aag aca gtt gga gtg gtt cct cgg caa ccc caa ctt cca 624  
 Met Asp Xaa Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln Leu Pro  
 195 200 205  
 25 gtc tct ctc cgt cat ggt ccc gtc acg ggc cca agt gat ccc gcc cac 672  
 Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro Ala His  
 210 215 220  
 30 aaa gca ccg ttg gag aga ccc cag att aga gtt ccg ccc ccc gca ccg 720  
 Lys Ala Arg Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Pro Ala Pro  
 225 230 235 240  
 35 gaa aaa gcc taa 732  
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 <211> 243  
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 <222> (4)..(4)  
 <223> The 'Xaa' at location 4, 14, 29, 30, 50, 52, 75, 91, 108, 118, 133,  
 154, 156, 179, 195 stands for Asn, Ser, Thr, Ile, Met, Gly, Ala, Val, Gln or  
 Leu.  
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5 Phe Val Lys Gly Glu Glu Lys Glu Pro Ser Lys Glu Xaa Xaa Ser Gly  
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Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu  
35 40 45

10 Ala Xaa Lys Xaa Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys  
50 55 60

15 Asn Glu Leu Val Ala Glu Val Pro Lys Lys Xaa Asp Ile Lys Thr Thr  
65 70 75 80

Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Xaa Lys Ile Gln Ser Thr  
85 90 95

20 Ile Phe Arg Gly Tyr Tyr Gly Phe Gln Glu Thr Xaa Gly Thr Met Val  
100 105 110

Arg Ala Leu Met Pro Xaa Leu Pro Phe Val Gln Gly Lys Glu Lys Glu  
115 120 125

25 Pro Ser Lys Gly Xaa Xaa Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr  
130 135 140

30 Lys Thr Gly Pro Gln Arg Val His Ala Xaa Glu Xaa Ile Gln Thr Ala  
145 150 155 160

Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro  
165 170 175

35 Lys His Xaa Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn  
180 185 190

40 Met Asp Xaa Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln Leu Pro  
195 200 205

Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro Ala His  
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45 Lys Ala Arg Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Pro Ala Pro  
225 230 235 240

50 Glu Lys Ala

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 15 ttc gtg aag ggg gag gag aag gag ccg tcg aag gag agc agc agc ggc 96  
     Phe Val Lys Gly Glu Lys Glu Pro Ser Lys Glu Ser Ser Ser Gly  
     20                 25                 30  
  
 20 acg aag aag ctg agc gag gag gtg aag acg acg gag cag aag agg gag 144  
     Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu  
     35                 40                 45  
  
 25 gcc tgc aag tgc ata gtg cgc gcc acg aag ggc atc tcc ggt atc aaa 192  
     Ala Cys Lys Cys Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys  
     50                 55                 60  
  
 30 aat gaa ctt gtc gcc gag gtc ccc aag aag tgc gat att aag acc act 240  
     Asn Glu Leu Val Ala Glu Val Pro Lys Lys Cys Asp Ile Lys Thr Thr  
     65                 70                 75                 80  
  
 35 ctc ccg ccc atc acc gcc gac ttc gac tgc tcc aag atc caa agt act 288  
     Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Gln Ser Thr  
     85                 90                 95  
  
 40 att ttc aga ggt tac tat gga ttc caa gaa acc agc ggg act atg gtg 336  
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     100                 105                 110  
  
 45 aga gcg ctg atg ccg tgc ctg ccg ttc gtg cag ggg aaa gag aaa gag 384  
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     115                 120                 125  
  
 50 ccg tca aag ggg agc agc ggc gcc aaa aga ttg gac ggg gag acg 432  
     Pro Ser Lys Gly Ser Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr  
     130                 135                 140  
  
 55 aag acg ggg ccg cag agg gtg cac gct tgt gag tgc atc cag acc gcc 480  
     Lys Thr Gly Pro Gln Arg Val His Ala Cys Glu Cys Ile Gln Thr Ala  
     145                 150                 155                 160  
  
 60 atg aag act tat tcc gac atc gac ggg aaa ctc gtc agc gag gtc ccc 528  
     Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro  
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aag cac tgc ggc atc gtt gac agc aag ctc ccg ccc att gac gtc aac 576  
 Lys His Cys Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn  
 180 185 190

5 atg gac tgc aag aca gtt gga gtg gtt cct ccg caa ccc caa ctt cca 624  
 Met Asp Cys Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln Leu Pro  
 195 200 205

10 gtc tct ctc cgt cat ggt ccc gtc acg ggc cca agt gat ccc gcc cac 672  
 Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro Ala His  
 210 215 220

15 aaa gca cgg ttg gag aga ccc cag att aga gtt ccg ccc ccc gca ccg 720  
 Lys Ala Arg Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Ala Pro  
 225 230 235 240

20 gaa aaa gcc taa 732  
 Glu Lys Ala

25 <210> 4  
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35 Phe Val Lys Gly Glu Glu Lys Glu Pro Ser Lys Glu Ser Ser Ser Gly  
 20 25 30

40 Thr Lys Lys Leu Ser Glu Glu Val Lys Thr Thr Glu Gln Lys Arg Glu  
 35 40 45

45 Ala Cys Lys Cys Ile Val Arg Ala Thr Lys Gly Ile Ser Gly Ile Lys  
 50 55 60

50 Asn Glu Leu Val Ala Glu Val Pro Lys Lys Cys Asp Ile Lys Thr Thr  
 65 70 75 80

55 Leu Pro Pro Ile Thr Ala Asp Phe Asp Cys Ser Lys Ile Gln Ser Thr  
 85 90 95

60 Ile Phe Arg Gly Tyr Tyr Gly-Phe Gln Glu Thr Ser Gly Thr Met Val  
 100 105 110

65 Arg Ala Leu Met Pro Cys Leu Pro Phe Val Gln Gly Lys Glu Lys Glu  
 115 120 125

Pro Ser Lys Gly Ser Ser Ser Gly Ala Lys Arg Leu Asp Gly Glu Thr  
130 135 140

5 Lys Thr Gly Pro Gln Arg Val His Ala Cys Glu Cys Ile Gln Thr Ala  
145 150 155 160

Met Lys Thr Tyr Ser Asp Ile Asp Gly Lys Leu Val Ser Glu Val Pro  
10 165 170 175

Lys His Cys Gly Ile Val Asp Ser Lys Leu Pro Pro Ile Asp Val Asn  
180 185 190

Met Asp Cys Lys Thr Val Gly Val Val Pro Arg Gln Pro Gln Leu Pro  
15 195 200 205

Val Ser Leu Arg His Gly Pro Val Thr Gly Pro Ser Asp Pro Ala His  
210 215 220

Lys Ala Arg Leu Glu Arg Pro Gln Ile Arg Val Pro Pro Pro Ala Pro  
20 225 230 235 240

Glu Lys Ala

25 <210> 5  
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30 <220>  
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50 <213> Artificial

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24